

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P234795

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234795
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-70-D-U-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6300 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 73
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

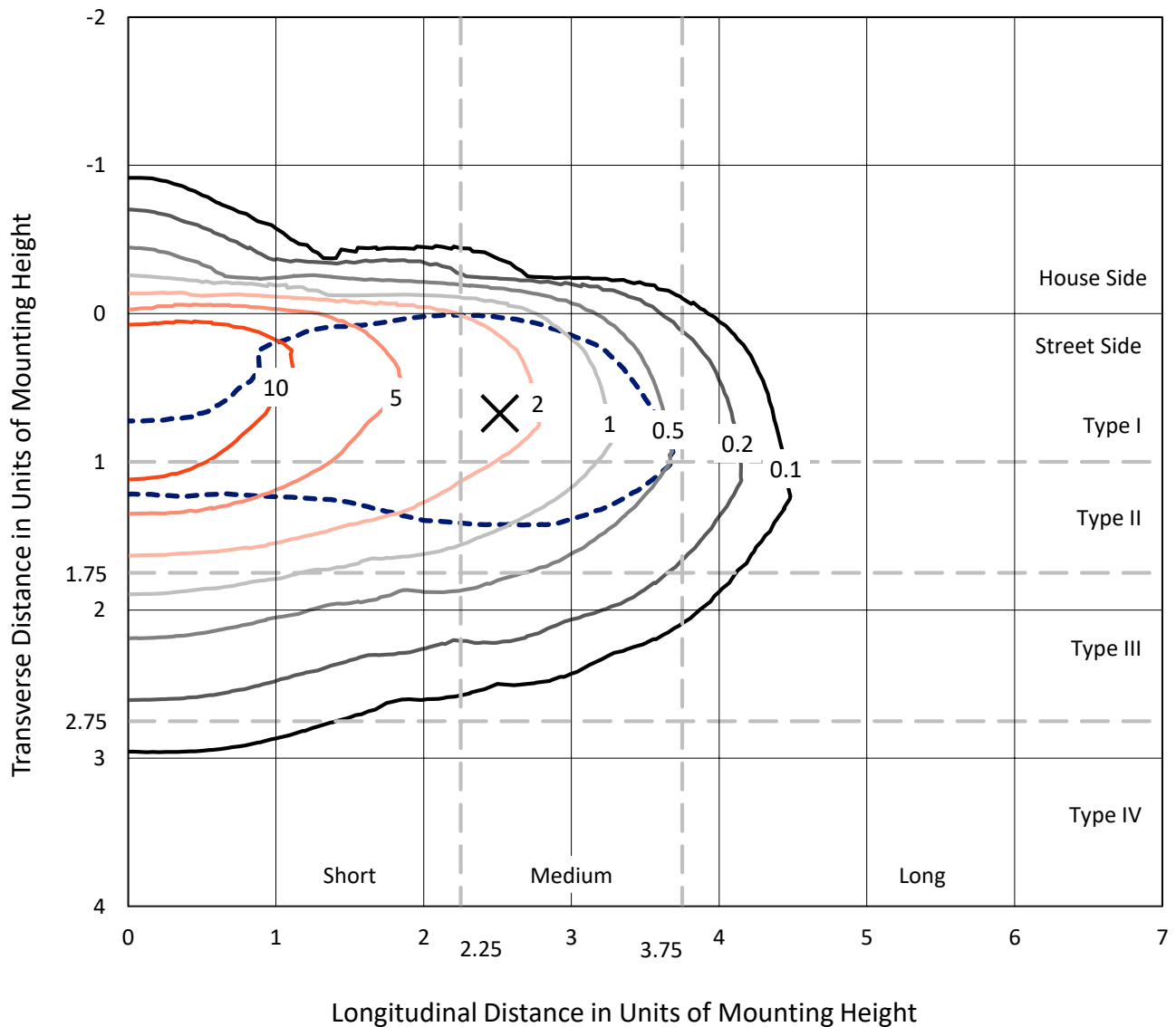


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

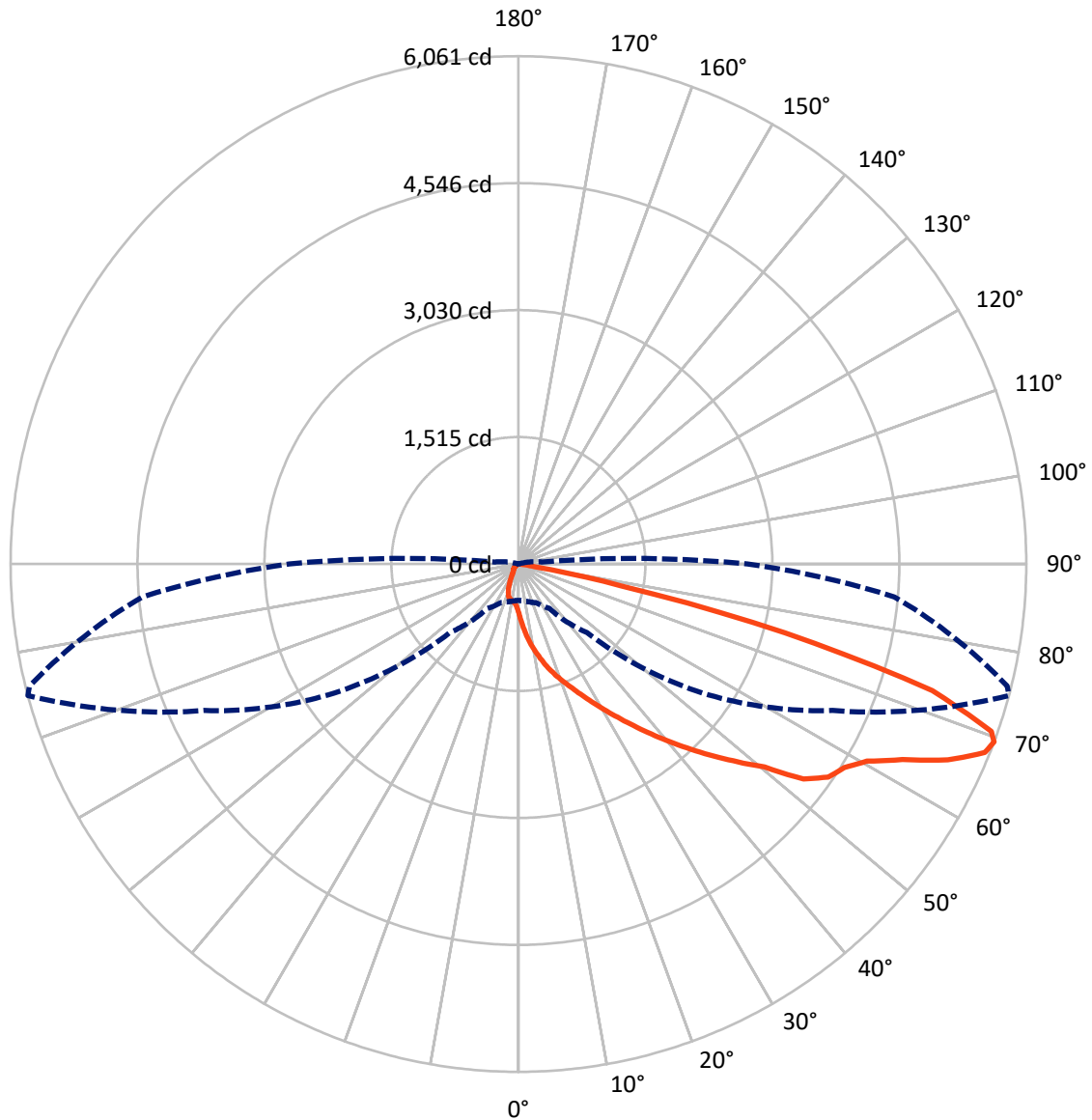


Based on 10 foot mounting height. Maximum calculated value = 16 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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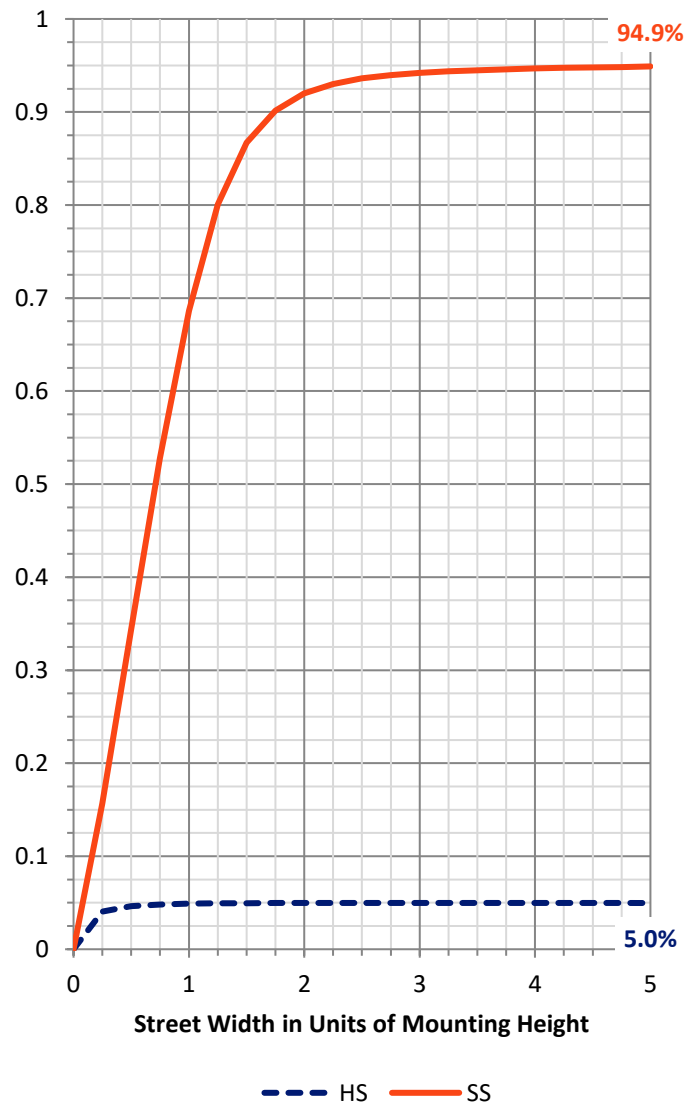
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	314.3	0.0	314.3
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	5985.7	0.0	5985.7
	% Fixture	95.0	0.0	95.0
Total	Lumens	6300.0	0.0	6300.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	1.1
10°-20°	244.4	3.9
20°-30°	466.5	7.4
30°-40°	836.9	13.3
40°-50°	1282.2	20.4
50°-60°	1490.2	23.7
60°-70°	1319.6	20.9
70°-80°	569.2	9.0
80°-90°	22.8	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	6300.0	100.0
0°-180°	6300.0	100.0



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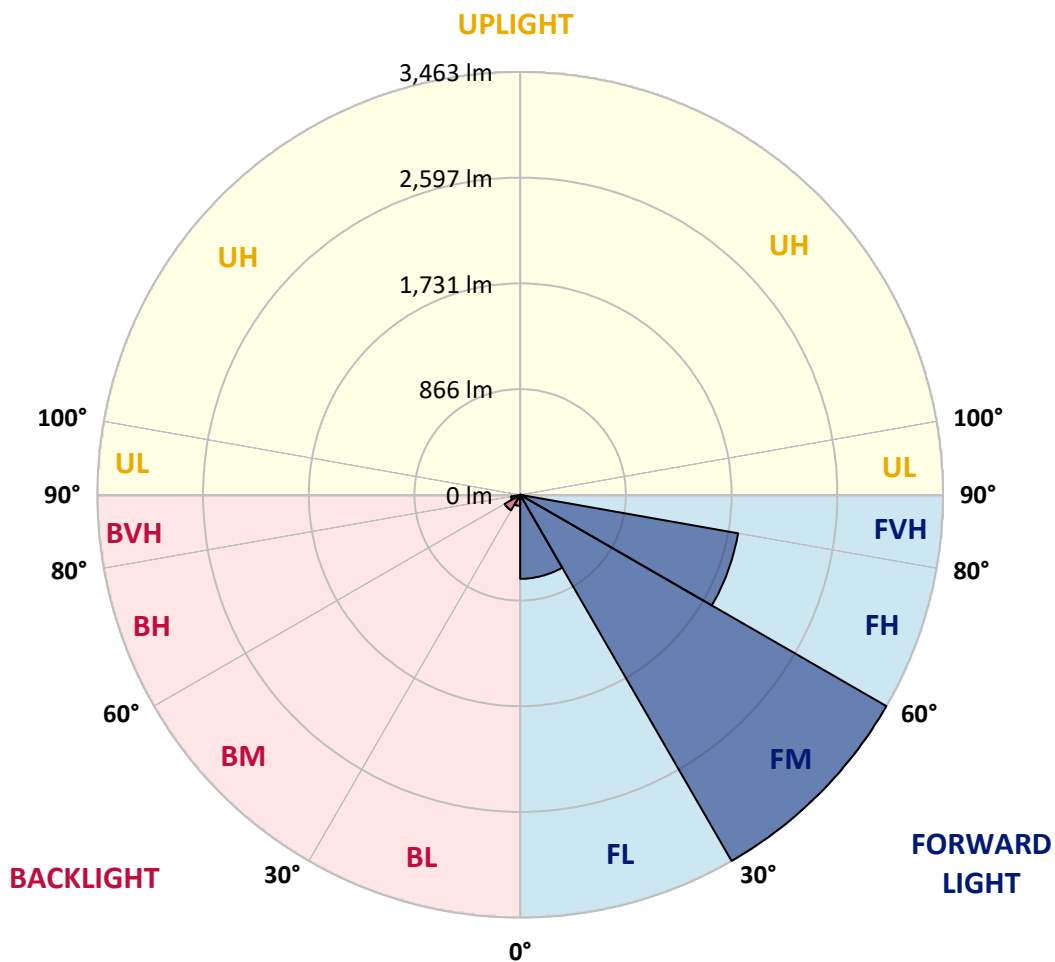
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	688.0	10.9			
FM (30°-60°)	3462.6	55.0			
FH (60°-80°)	1812.6	28.8			G2/5000
FVH (80°-90°)	22.5	0.4			G1/100
BL (0°-30°)	91.3	1.4	B0/110		
BM (30°-60°)	146.5	2.3	B0/220		
BH (60°-80°)	76.2	1.2	B0/110		G0/110
BVH (80°-90°)	0.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	586.2	586.2	586.2	586.2	586.2	586.2	586.2	586.2	586.2	586.2	586.2
2.5°	965.7	956.2	946.6	935.8	911.3	869.1	816.1	758.9	688.2	676.0	618.9
5°	1172.4	1168.3	1158.8	1143.9	1116.7	1070.4	1010.6	926.2	807.9	787.5	666.5
7.5°	1318.0	1315.2	1307.1	1289.4	1264.9	1218.7	1156.1	1065.0	927.6	904.5	726.3
10°	1448.5	1447.2	1440.4	1424.0	1399.6	1349.2	1282.6	1187.4	1041.9	1016.0	795.7
12.5°	1566.9	1568.2	1565.5	1557.3	1539.7	1492.1	1415.9	1312.5	1152.0	1123.5	878.6
15°	1636.2	1640.3	1651.2	1667.5	1673.0	1634.9	1556.0	1441.7	1264.9	1240.4	973.8
17.5°	1613.1	1617.2	1651.2	1707.0	1760.0	1765.4	1694.7	1564.1	1376.4	1352.0	1067.7
20°	1557.3	1562.8	1598.1	1674.3	1777.7	1849.8	1821.2	1697.4	1482.5	1452.6	1157.5
22.5°	1619.9	1619.9	1630.8	1677.0	1770.9	1883.8	1921.9	1830.7	1591.3	1554.6	1247.2
25°	1834.8	1830.7	1807.6	1788.6	1818.5	1919.1	1998.0	1966.7	1719.2	1677.0	1342.4
27.5°	2106.8	2125.9	2082.3	2013.0	1945.0	1988.5	2066.0	2101.4	1860.6	1817.1	1440.4
30°	2411.5	2419.7	2368.0	2275.5	2155.8	2113.6	2146.3	2217.0	2014.3	1966.7	1542.4
32.5°	2686.2	2679.4	2635.9	2539.3	2391.1	2300.0	2249.6	2309.5	2181.6	2127.2	1647.1
35°	2929.7	2935.1	2882.1	2770.6	2625.0	2528.5	2408.8	2414.2	2369.3	2306.8	1768.2
37.5°	3148.7	3139.2	3088.8	2977.3	2845.4	2740.6	2614.2	2523.0	2574.7	2509.4	1904.2
40°	3326.9	3317.3	3264.3	3155.5	3031.7	2946.0	2846.7	2668.6	2791.0	2716.2	2049.7
42.5°	3468.3	3457.4	3412.5	3307.8	3188.1	3112.0	3064.4	2848.1	3022.2	2947.4	2212.9
45°	3537.7	3528.2	3501.0	3422.1	3317.3	3250.7	3273.8	3054.8	3269.7	3207.2	2392.5
47.5°	3456.1	3452.0	3483.3	3469.7	3409.8	3374.5	3454.7	3280.6	3529.5	3468.3	2599.2
50°	3208.5	3215.3	3306.5	3419.3	3447.9	3490.1	3603.0	3518.6	3808.3	3743.1	2837.2
52.5°	2597.8	2644.1	2918.8	3190.8	3401.7	3560.8	3777.1	3858.7	4262.6	4198.7	3208.5
55°	1939.5	1958.6	2257.8	2723.0	3215.3	3555.4	3906.3	4058.6	4487.0	4421.8	3306.5
57.5°	1538.3	1545.1	1693.4	2168.0	2831.8	3432.9	3974.3	4130.7	4585.0	4530.6	3452.0
60°	1207.8	1215.9	1323.4	1649.8	2291.8	3102.4	3876.3	4193.3	4776.7	4733.2	3706.3
62.5°	939.8	948.0	1013.3	1205.1	1719.2	2593.8	3679.1	4293.9	5141.3	5120.9	4122.5
65°	727.7	730.4	775.3	865.0	1214.6	2042.9	3438.4	4387.8	5633.6	5615.9	4459.8
67.5°	537.2	541.3	572.6	628.4	820.2	1467.6	3044.0	4315.7	6004.9	5953.3	4582.3
69°	433.9	438.0	465.2	510.0	647.4	1156.1	2683.5	4137.5	6060.7	6011.7	4504.7
70°	371.3	374.0	401.2	439.3	552.2	982.0	2397.9	3983.8	5987.3	5939.7	4327.9
72.5°	238.0	251.6	278.8	303.3	365.9	650.1	1618.5	3303.7	5165.7	5084.1	3389.4
75°	131.9	136.0	185.0	214.9	243.5	423.0	900.4	2060.6	3286.1	3228.9	1813.0
77.5°	108.8	111.5	130.6	163.2	163.2	236.7	340.0	812.0	1250.0	1127.5	491.0
80°	76.2	78.9	99.3	107.4	117.0	133.3	110.2	178.2	193.1	171.4	73.4
82.5°	53.0	55.8	68.0	88.4	93.8	62.6	40.8	53.0	55.8	55.8	28.6
85°	9.5	13.6	50.3	73.4	55.8	19.0	23.1	19.0	17.7	19.0	6.8
87.5°	0.0	0.0	31.3	35.4	29.9	8.2	9.5	6.8	4.1	5.4	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	586.2	586.2	586.2	586.2	586.2	586.2	586.2	586.2	586.2	586.2	586.2
2.5°	590.3	561.7	512.8	477.4	447.5	424.4	414.8	399.9	389.0	394.4	387.6
5°	606.6	556.3	477.4	427.1	391.7	361.8	337.3	318.3	303.3	300.6	297.9
7.5°	632.5	560.4	457.0	394.4	341.4	295.1	257.1	228.5	206.7	206.7	198.6
10°	667.8	571.3	444.8	361.8	282.9	220.3	182.3	155.1	144.2	142.8	140.1
12.5°	716.8	591.7	435.2	319.6	220.3	160.5	137.4	127.9	123.8	122.4	121.1
15°	783.4	621.6	424.4	267.9	167.3	131.9	122.4	114.3	110.2	108.8	107.4
17.5°	847.4	648.8	401.2	214.9	136.0	119.7	108.8	102.0	96.6	95.2	95.2
20°	907.2	671.9	361.8	167.3	122.4	107.4	96.6	88.4	83.0	81.6	81.6
22.5°	969.8	690.9	312.8	136.0	111.5	95.2	84.3	76.2	70.7	69.4	68.0
25°	1036.4	704.5	257.1	121.1	100.6	84.3	72.1	65.3	61.2	59.8	58.5
27.5°	1108.5	710.0	204.0	110.2	88.4	73.4	62.6	55.8	53.0	51.7	51.7
30°	1173.8	704.5	157.8	97.9	77.5	63.9	54.4	49.0	46.2	44.9	44.9
32.5°	1241.8	690.9	126.5	87.0	68.0	54.4	46.2	42.2	40.8	39.4	39.4
35°	1313.9	673.3	108.8	77.5	58.5	47.6	40.8	38.1	36.7	35.4	35.4
37.5°	1398.2	651.5	99.3	69.4	51.7	42.2	35.4	34.0	32.6	32.6	32.6
40°	1493.4	624.3	92.5	62.6	46.2	36.7	31.3	29.9	28.6	28.6	28.6
42.5°	1594.1	593.0	85.7	55.8	40.8	31.3	27.2	27.2	25.8	25.8	24.5
45°	1707.0	561.7	78.9	49.0	35.4	27.2	23.1	21.8	21.8	20.4	20.4
47.5°	1840.2	533.2	72.1	43.5	31.3	23.1	20.4	19.0	17.7	16.3	16.3
50°	2027.9	530.4	63.9	38.1	28.6	19.0	16.3	15.0	13.6	12.2	12.2
52.5°	2214.3	506.0	54.4	31.3	23.1	16.3	12.2	10.9	9.5	9.5	8.2
55°	2256.4	465.2	47.6	27.2	17.7	12.2	9.5	6.8	6.8	5.4	5.4
57.5°	2348.9	446.1	40.8	21.8	13.6	9.5	5.4	4.1	4.1	4.1	4.1
60°	2531.2	440.7	35.4	19.0	9.5	6.8	4.1	2.7	2.7	1.4	1.4
62.5°	2782.8	435.2	29.9	16.3	6.8	4.1	2.7	1.4	0.0	0.0	0.0
65°	2921.5	398.5	24.5	12.2	5.4	4.1	1.4	0.0	0.0	0.0	0.0
67.5°	2884.8	329.1	21.8	8.2	4.1	2.7	1.4	0.0	0.0	0.0	0.0
69°	2731.1	277.5	17.7	6.8	4.1	2.7	1.4	0.0	0.0	0.0	0.0
70°	2546.1	239.4	16.3	5.4	2.7	1.4	1.4	0.0	0.0	0.0	0.0
72.5°	1807.6	125.1	10.9	4.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0
75°	844.6	55.8	6.8	2.7	1.4	1.4	0.0	0.0	0.0	0.0	0.0
77.5°	186.3	25.8	4.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	35.4	9.5	2.7	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.2	4.1	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)